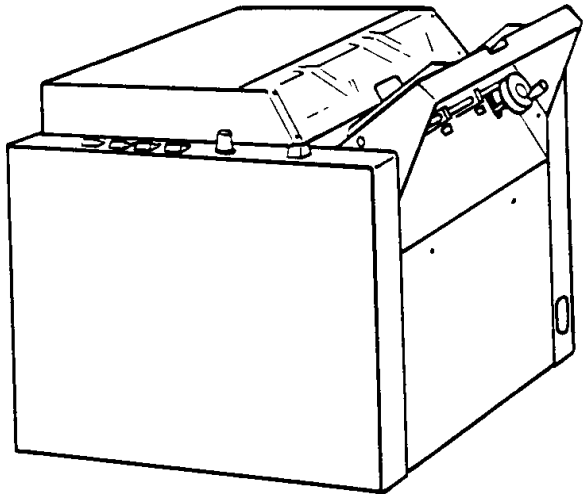
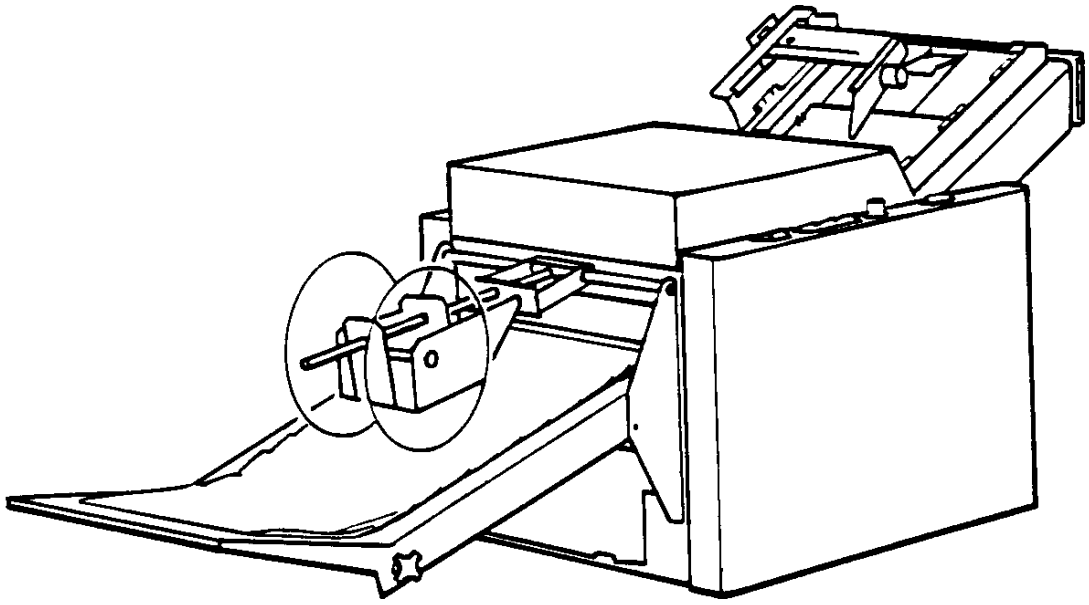
Stapler/Folder Model 60/61
Service manual





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GENERAL INFORMATION

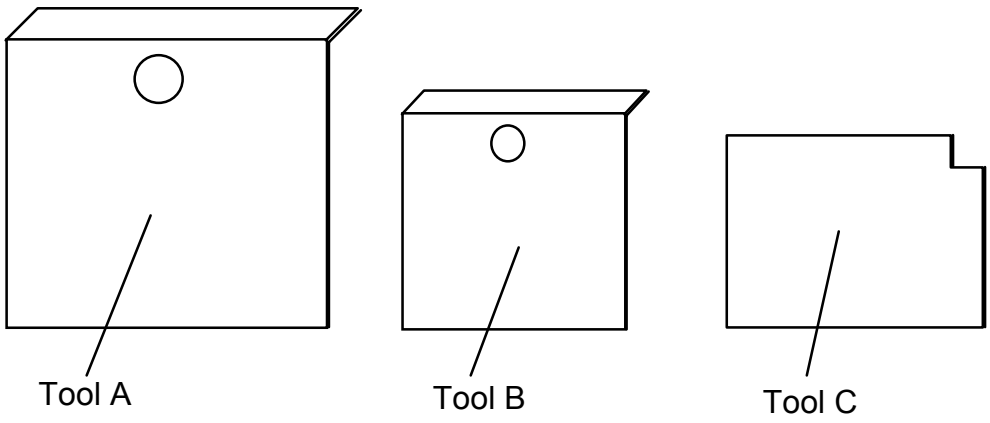
This service manual describes both the Model 60 and the Model 61.
Also available is conversion kit instruction Model 60 to Model 61, installation instruction Model 61 and a spare parts list Model 60/61.

PLOCKMATIC CHISEL POINT STAPLES

The staples that should be used in the Model 60/61 are PLOCKMATIC chisel point staples, part number 800001. When using PLOCKMATIC staples functional disorders are avoided and the life length of the stapler heads are radically increased.

SPECIAL TOOLS

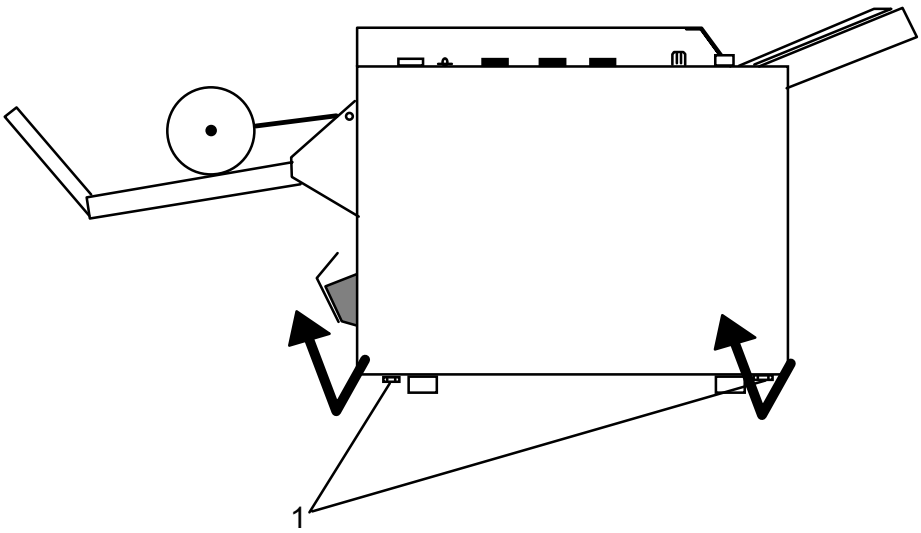
There is a tool set available, part number 600007, in order to facilitate adjustments on Model 60/61.



FRONT COVER

REMOVAL

1. Loosen the two screws (1).
2. Pull out the lower end and lift up to remove.
   CAUTION: Lift carefully when removing front cover to prevent damaging the wire harness to front panel.



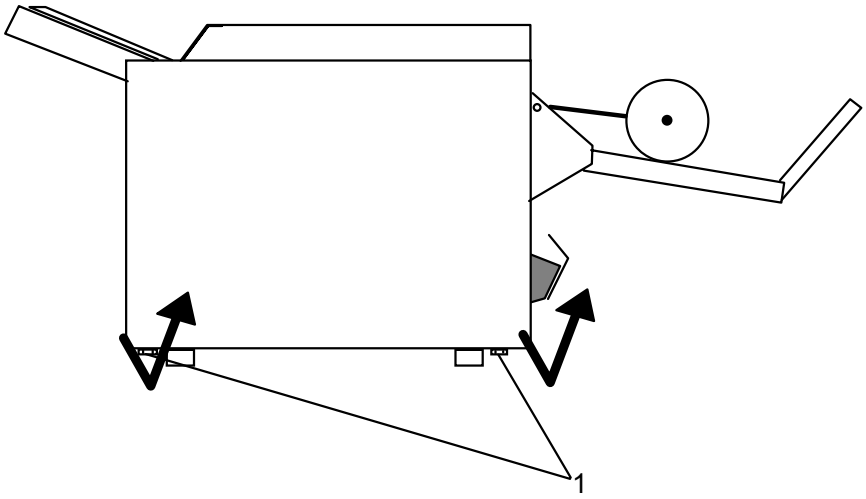
INSTALLATION

1. Installation is an exact reversed procedure of removal.

REAR COVER

REMOVAL

1. Loosen the two screws (1).
2. Pull out the lower end and lift up to remove.



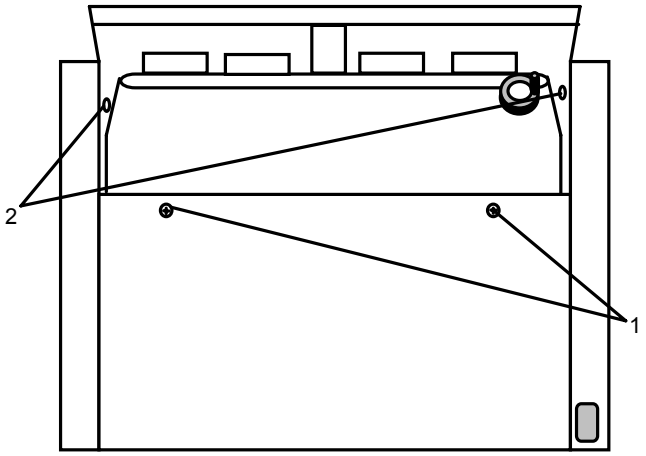
INSTALLATION

1. Installation is an exact reversed procedure of removal.

UPPER/LOWER INFEED COVER

REMOVAL

1. Remove the two screws (1).
2. Pull out the upper end of Lower infeed cover and open cover to horizontal position.
3. Remove the screws (2) and remove the upper infeed cover.



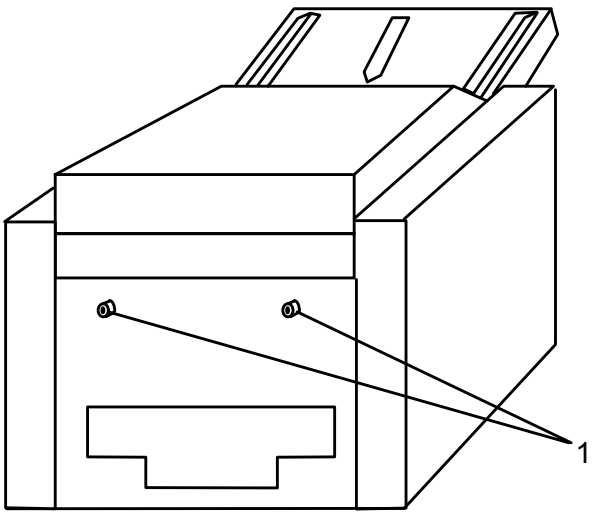
INSTALLATION

1. Installation is an exact reversed procedure of removal.

OUTFEED COVER

REMOVAL

1. Loosen the two screws (1).
2. Pull out the upper end of cover and open to horizontal position.



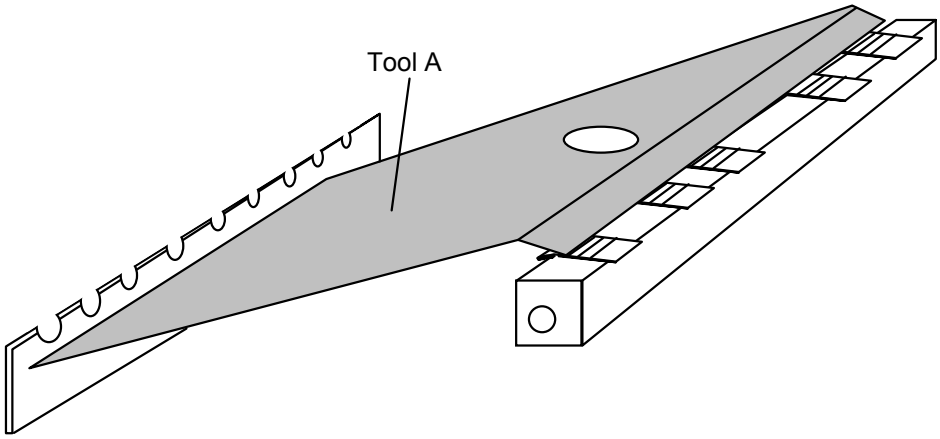
INSTALLATION

1. Installation is an exact reversed procedure of removal.

PURPOSE

The purpose is to align the Anvil bar with the Fold knife to obtain a correct staple position.

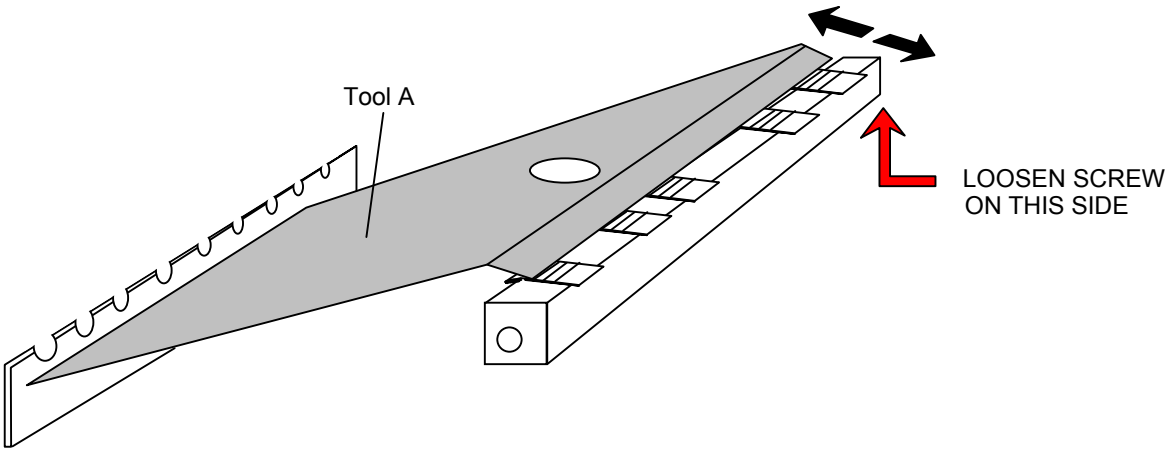
1. Switch off the main power switch and disconnect the power cord.
2. Remove front, Rear and Infeed cover CRI.1.1 and 1.2.
3. Empty the stapler magazines.
4. Move the Fold knife to top position by turning the shaft on rear side of Fold knife Motor manually.
5. Move the Side guides to outer position.
6. Insert tool A and check that the Anvils are aligned with the edge of tool A.



ADJUSTMENT

1. Loosen the screw holding the Anvil bar a fraction on the rear side of machine.
2. Tap carefully on the screw with a hammer to position the Anvil bar.
3. Tighten the screw.

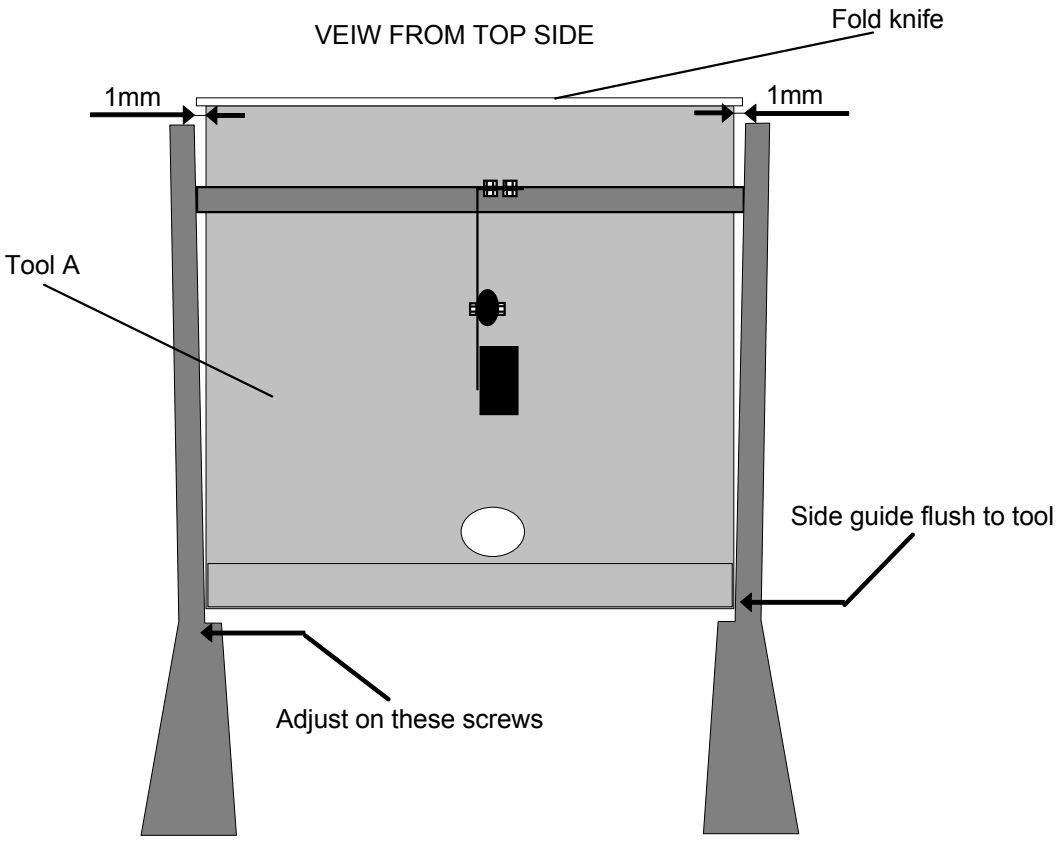
   CAUTION: Do not move the Anvil bar up or down, that could cause the stapling pressure to be uneven.



PURPOSE

Side guides needs to have the correct position in order to transport the set straight to the fold stop.

1. Switch off the main power switch and disconnect the power cord.
2. Remove lower Infeed cover, CRI 1.2.
3. Empty Stapler magazines.
4. Move Fold knife to top position by turning the shaft on rear side of fold knife manually.
5. Tighten the Side guides in the outer most position and insert tool A.
6. Move tool A until Side guide inner point is flush to tool.



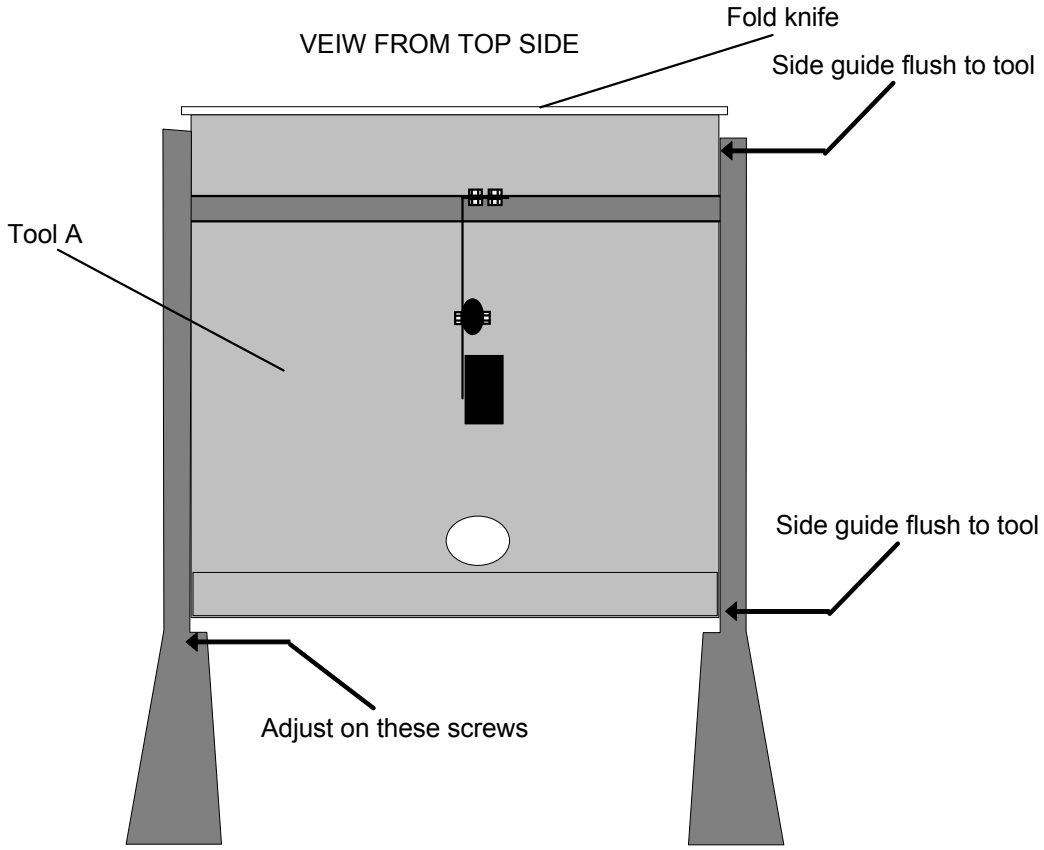
ADJUSTMENT

1. Loosen screws holding Side guides and adjust so that there is a 1mm gap at the lower end of Side guides according to the figure.

PURPOSE

The Side guides needs to be exactly parallel in order to transport the set straight to the Fold stop.

1. Switch off the main power switch and disconnect the power cord.
2. Remove lower Infeed cover, CRI 1.2.
3. Empty the Staple magazines.
4. Move the Fold knife to top position by turning the shaft on the rear side of Fold knife motor manually.
5. Move the Side guides to the outer most position and insert tool A.
6. Check that the Side guides are flush to tool.



ADJUSTMENT

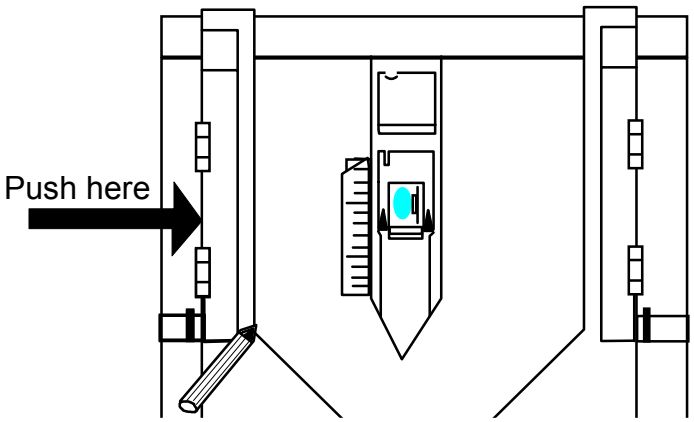
1. Loosen the screws holding the Side guides, adjust until the Side guides are flush along the side of tool A.

PURPOSE

On the Model 61 the side jogging is performed with the rear jogging rail. The jogging stroke is essential
to the jogging performance and the transport of stets to the fold area.

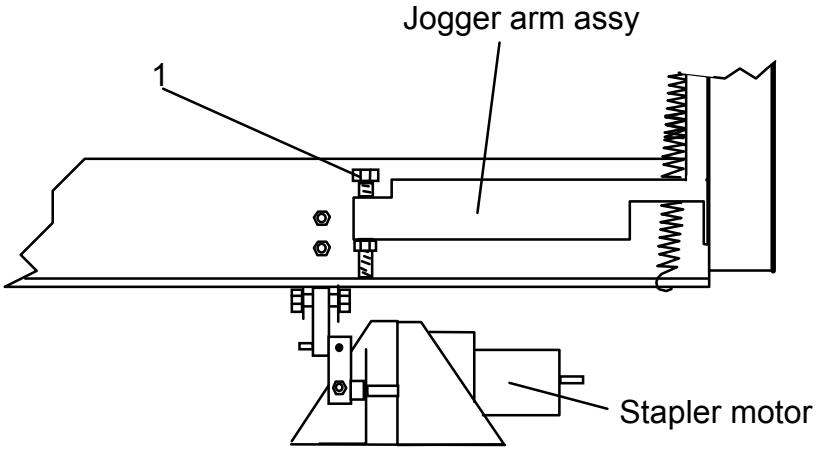
1. Switch off the main power switch and disconnect the power cord.
2. Remove lower Infeed cover, CRI 1.2.
3. Push the jogging rail in manually and make a mark with a pen, release the jogging rail and measure the distance from the mark to the jogging rail. The jogging movement should be 3.5 +/- 0.5mm.

VIEW FROM TOP



ADJUSTMENT

1. Locate the Jogger arm assembly close to the Stapler motor.
2. Adjust on screw (1) to obtain the 3.5 +/- 0.5mm.

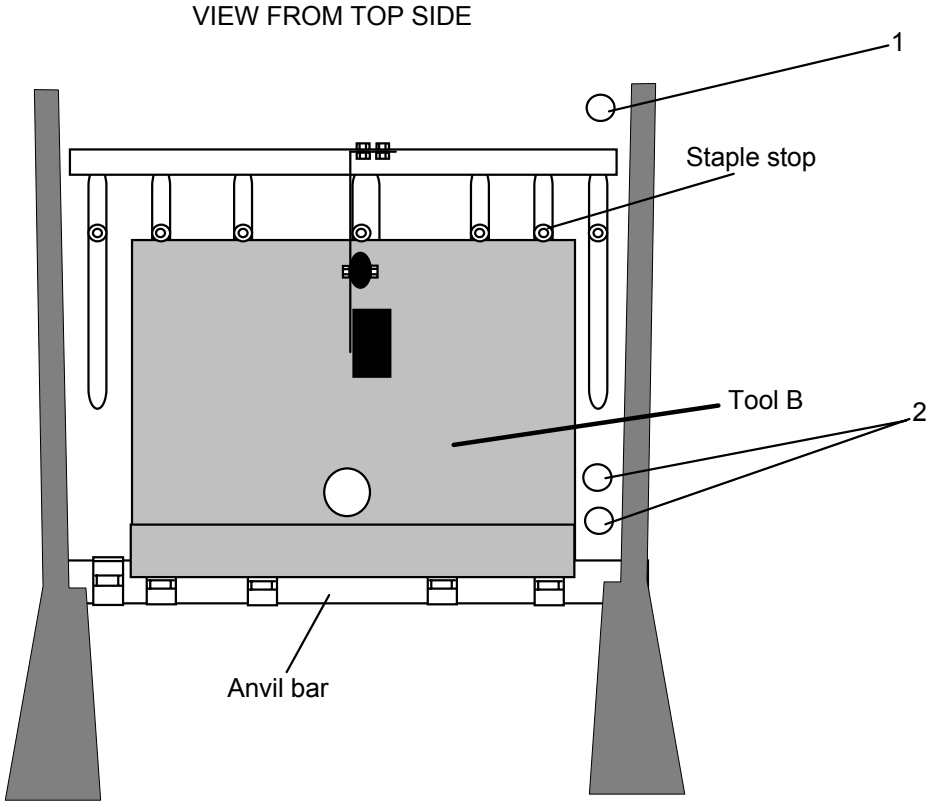


PURPOSE

The purpose is to obtain the correct staple position.

1. Switch off the main power switch and disconnect the power cord.
2. Empty Staple magazines.
3. Insert tool B according to the drawing and crank hand wheel to position upper edge of tool at Anvils.

   CAUTION. The clear Indicator switch could be damaged when inserting tool B.



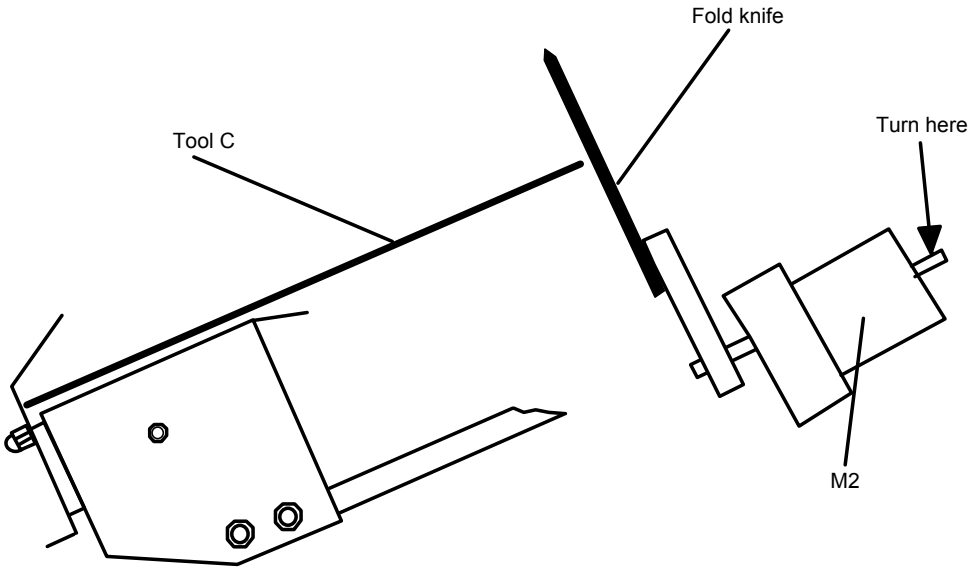
ADJUSTMENT

1. Loosen one of the screws at position (1) and two of the screws at position (2).
2. Adjust by skewing the staple stop carriage until tool B is aligned with the anvils.
3. Tighten the screws at position (1) and (2).

PURPOSE

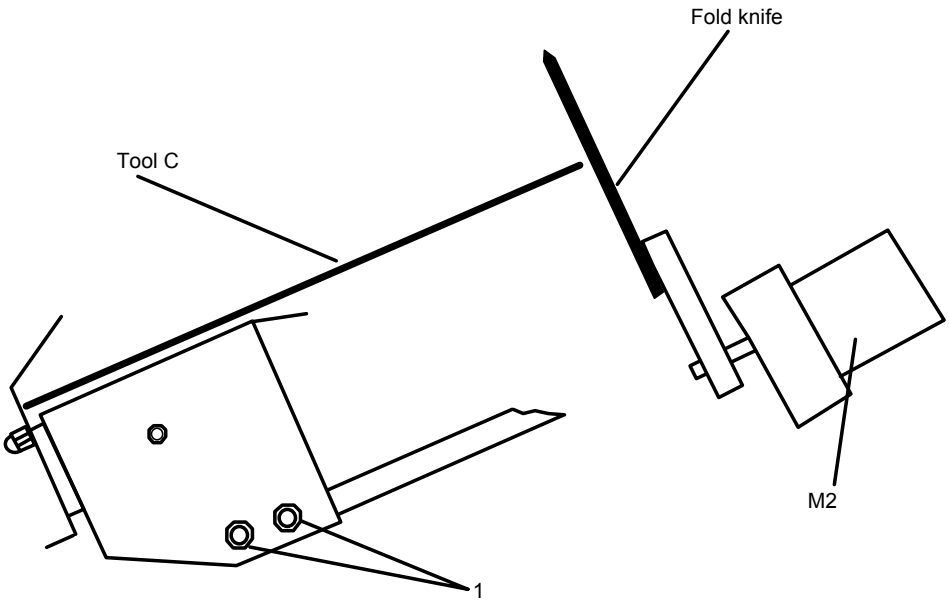
The purpose is to obtain the correct folding position.

1. Switch off the main power switch and disconnect the power cord.
2. Remove Outfeed cover, CRI 1.2.
3. Move Fold knife to top position by turning the shaft on rear side of fold knife motor manually.
4. Turn the hand wheel to fit tool C between the Fold stop and the Fold knife.
5. Check that the Fold stop is parallel with the Fold knife.



ADJUSTMENT

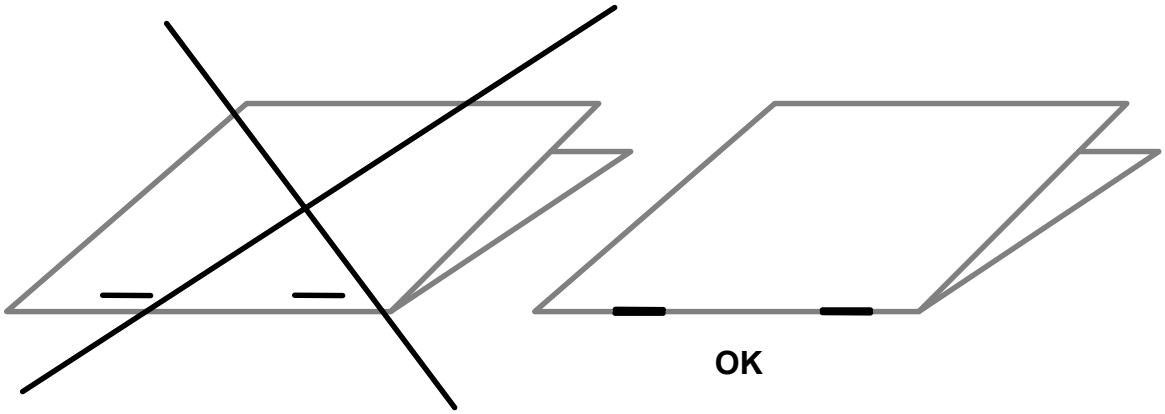
1. Loosen the screws 1 and position the Fold stop parallel compared to the Fold knife.
   NOTE. Loosen only the screws on one side of Fold stop, if loosen screws on both sides, staple position on fold may have to be adjusted.



PURPOSE

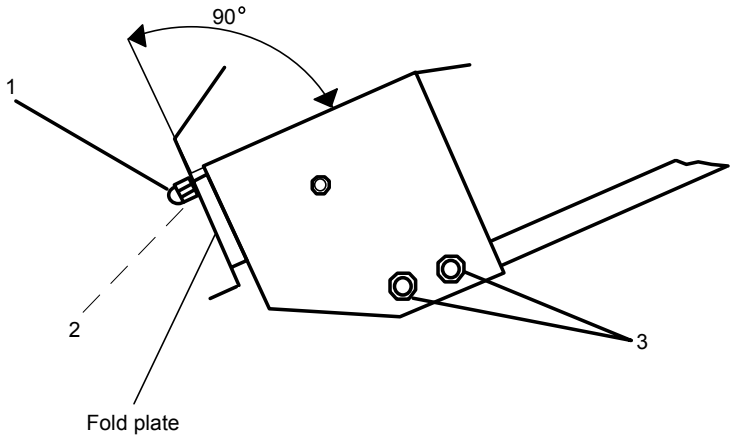
The distance between the fold stop and the fold knife should be equal to the distance between the fold knife and the staple outlet. Regardless of where the fold is positioned the staples should always be on the fold.

1. Run a few sets of two sheets and check the position of the staples.



ADJUSTMENT

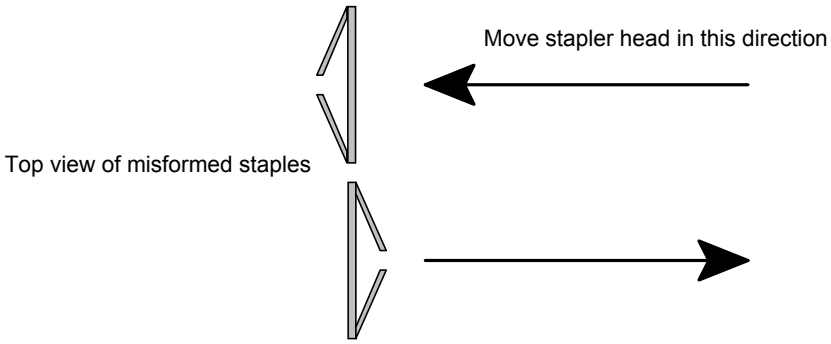
1. Remove the nut (1).
2. Position the Fold plate by turning the set screw (2), clockwise will increase the length between the Fold stop and the Fold knife.
   NOTE. The Fold plate should be in an approximately 90^{o} angle compared to the fixed part of the Fold stop. It is not recommended to do a large adjustment on the set screw. If a large adjustment is needed, loosen the screws (3) on both sides of Fold stop and go to REP. 2.5 for adjustment.



PURPOSE

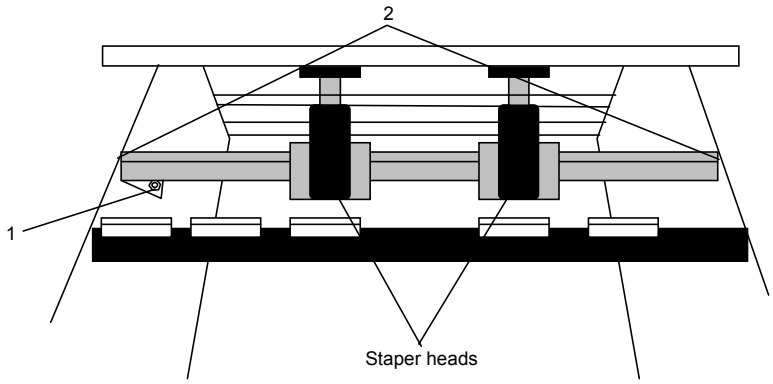
By checking the staples on a stapled set you can easely determine if the staple outlet on the stapler head is positioned on top of the slot in the anvil.

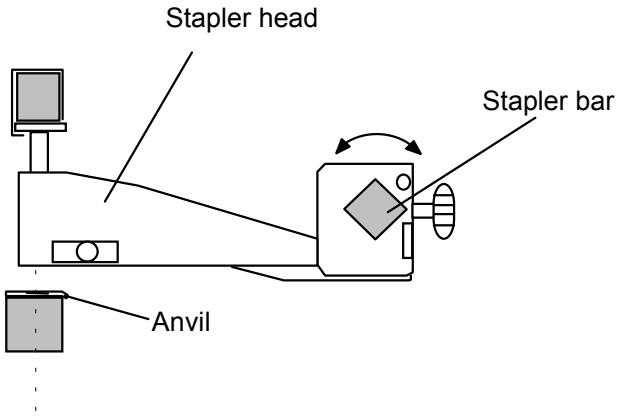
1. Remove front and rear cover, CRI 1.1.
2. Make a few staples on a set of two sheets (do not fold), the ends of the staple are always pointing at the slot in the anvil.



ADJUSTMENT

1. Loosen the screw (1).
2. Loosen the screws (2) a fraction, holding the Stapler bar to the side frame.
3. Use a 17 mm wrench to turn the Stapler bar until the staples are formed correctly.
   WARNING: This adjustment is performed with the power ON, make sure to stay clear from moving parts.

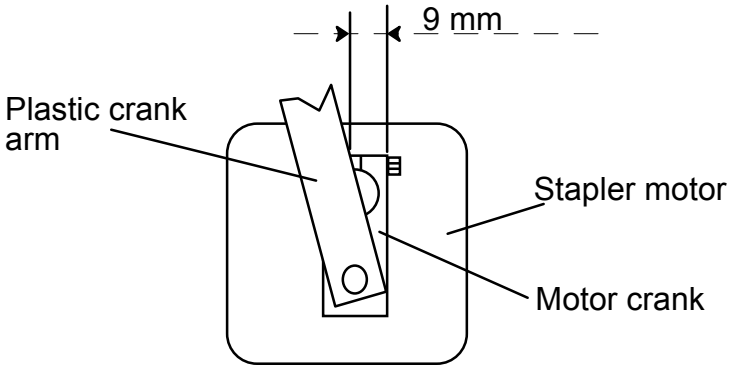




PURPOSE

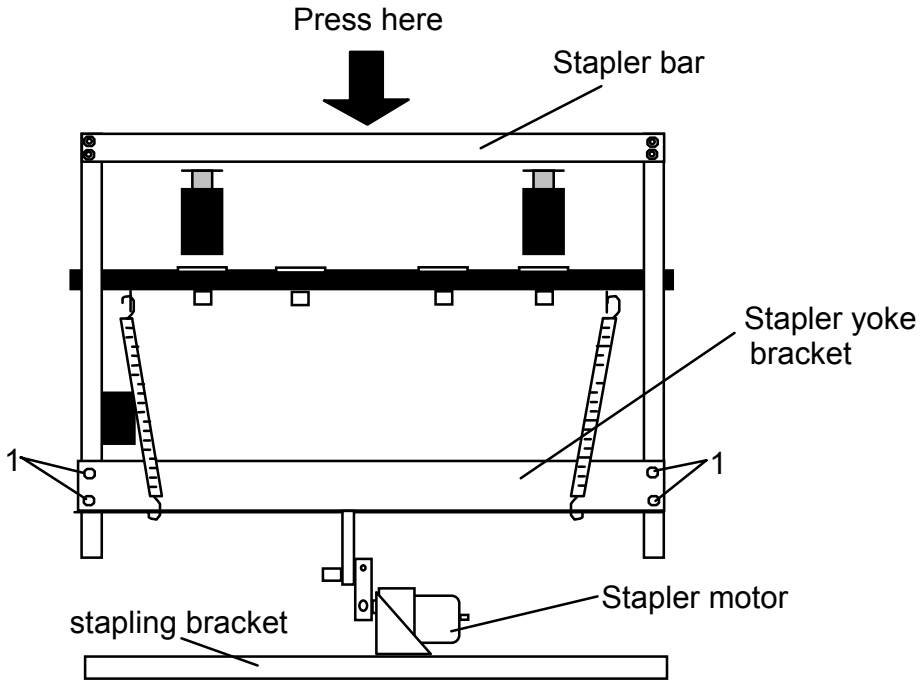
It is possible to staple through 22 sheets of paper without adjusting the stapler pressure.
The stapler pressure should increase when thick sets are stapled.
To make this possible a piece of spring steel is mounted underneath the stapling bracket. If stapler pressure is incorrect adjusted, staples will be loose when stapling two sheets.
To check do the following steps.

1. Switch off the main power switch and disconnect the power cord.
2. Remove Infeed cover, CRI 1.2.
3. Empty the Staple magazines.
4. Press on top of the Stapler bar until the Stapler heads are fully compressed.
5. Check that the distance is 9 mm from the stapler Motor crank to the plastic Crank arm.



ADJUSTMENT

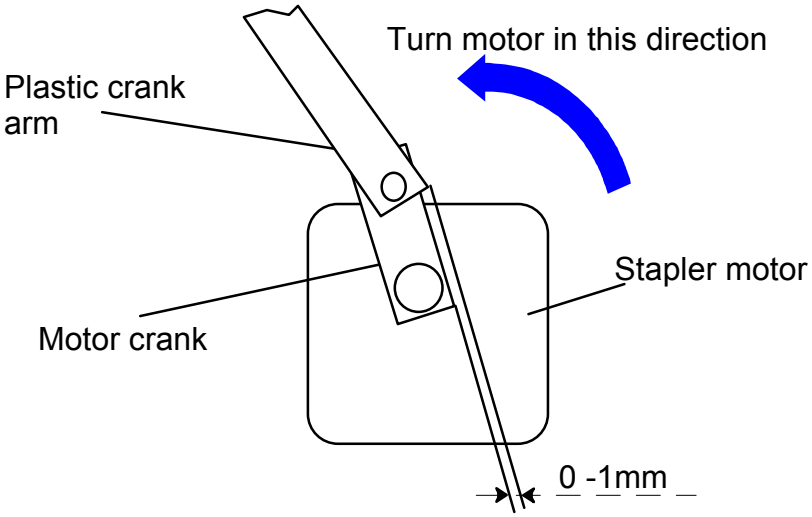
1. Loosen the screws (1).
2. Position the stapler yoke bracket to obtain the 9 mm and tighten the screws.



PURPOSE

Switch SW7 stops the Stapler motor at home position.
There are two springs that holds the Stapler yoke in top position when Stapler motor is in home position.

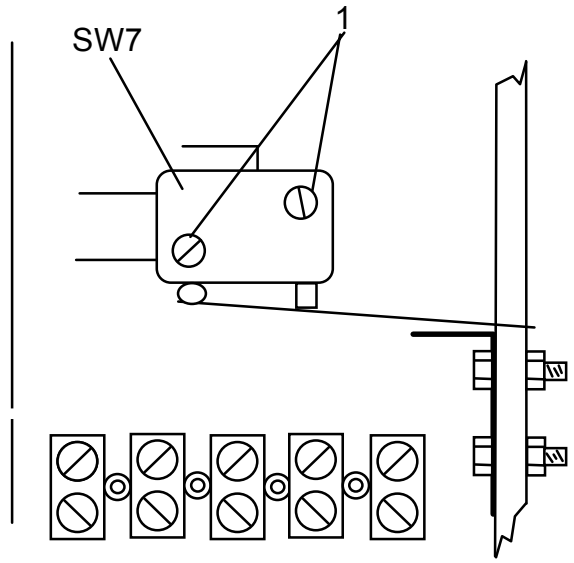
1. Switch off the main power switch and disconnect the power cord.
2. Remove Front and Infeed cover, CRI 1.1 and 1.2.
3. Empty the Staple magazines.
4. Turn the Stapler motor crank manually and check that Switch SW7 activates 0-1mm before motor crank arm is aligned with plastic crank arm.



ADJUSTMENT

Locate Switch SW7 positioned on side frame operator side.

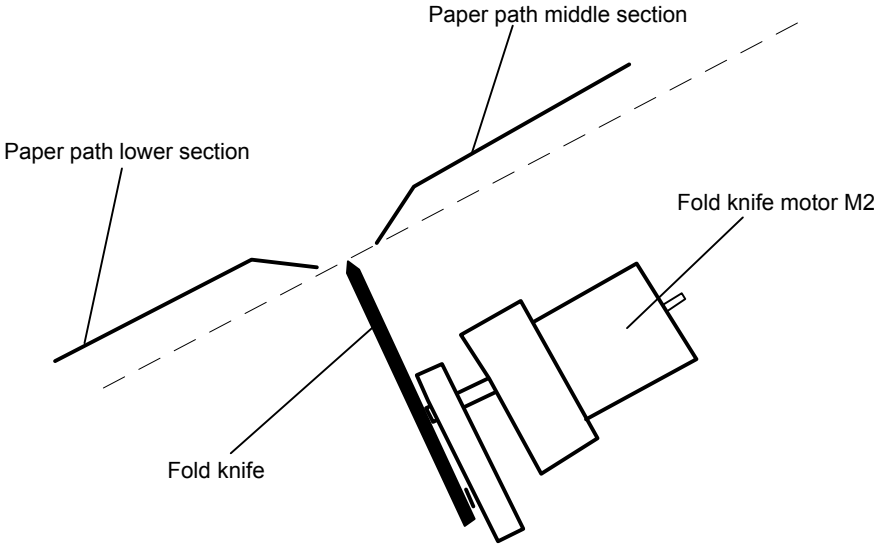
1. Loosen the screws (1).
2. Turn Stapler motor manually and stop when the plastic crank arm on the motor is 1mm (5 degrees) before top dead centre.
3. Position SW7 so that it activates and tighten the screws (1).



PURPOSE

Switch SW8 stops the Knife motor at home position.

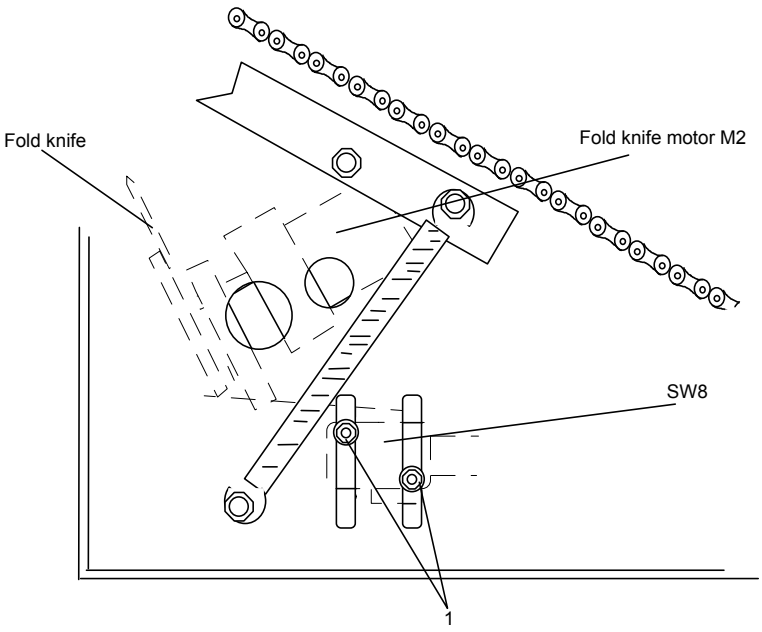
1. Remove Front and Infeed cover, CRI 1.1 and 1.2.
2. Select folding on front panel.
3. Run one set of paper trough and check that the Fold knife stops below the paper path according to the drawing.
   WARNING: This adjustment is performed with power ON, make sure to stay clear from moving parts.



ADJUSTMENT

Locate Switch SW8 positioned on side frame operator side.

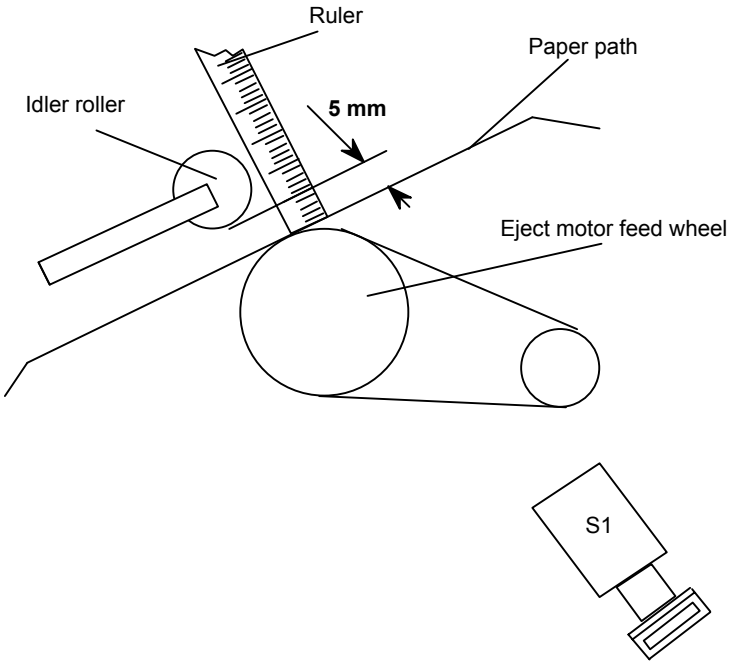
1. Loosen the screws (1).
2. Position SW8 to obtain the correct home position for the Fold knife.
   WARNING: This adjustment is performed with power ON, make sure to stay clear from moving parts.



PURPOSE

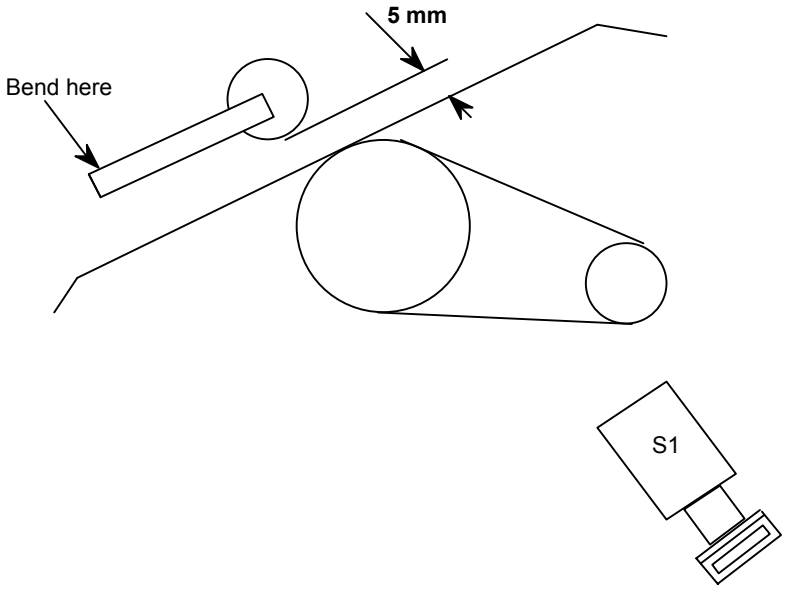
The upper Idler roller has to be positioned at the correct height in order for the Eject motor feed wheel to feed the set to the Fold stop.

1. Switch off the main power switch and disconnect the power cord.
2. Measure the distance from the paper path to the lower end of the Idler roller.



ADJUSTMENT

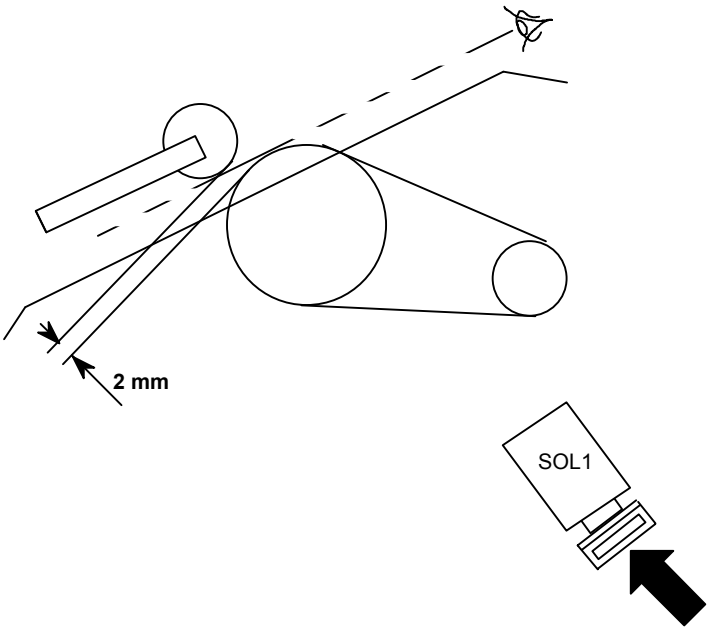
1. Adjust by carefully bending the bracket for Idler roller according to the drawing below.



PURPOSE

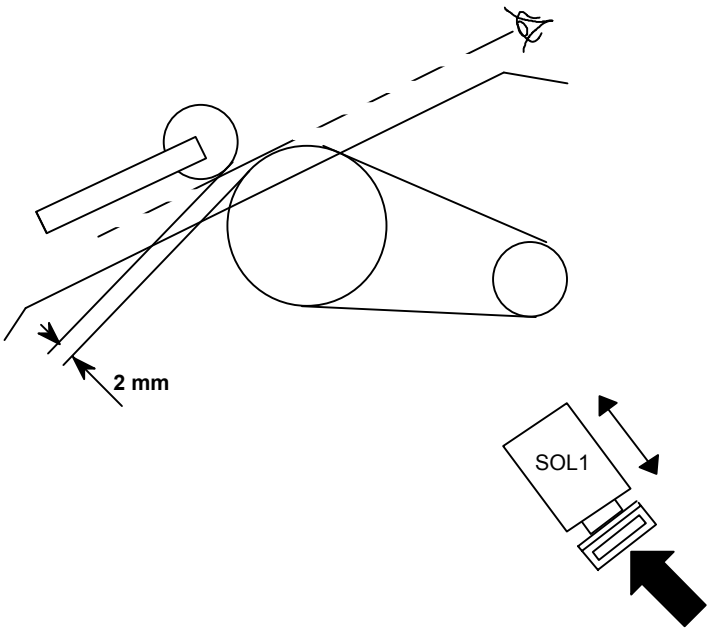
There should be a clearance between the Idler roller and the Eject feed wheel when Solenoid SOL1 is activated. If Idler roller and Feed wheel are touching there could be a problem to feed sets with large sizes (A3/11"x17").

1. Switch off the main power switch and disconnect the power cord.
2. Remove Infeed cover, CRI 1.2.
3. Press on the plunger for Solenoid SOL1 and view from the infeed side, the rollers will appear to be
   flush when there is a 2mm space in between them.



ADJUSTMENT

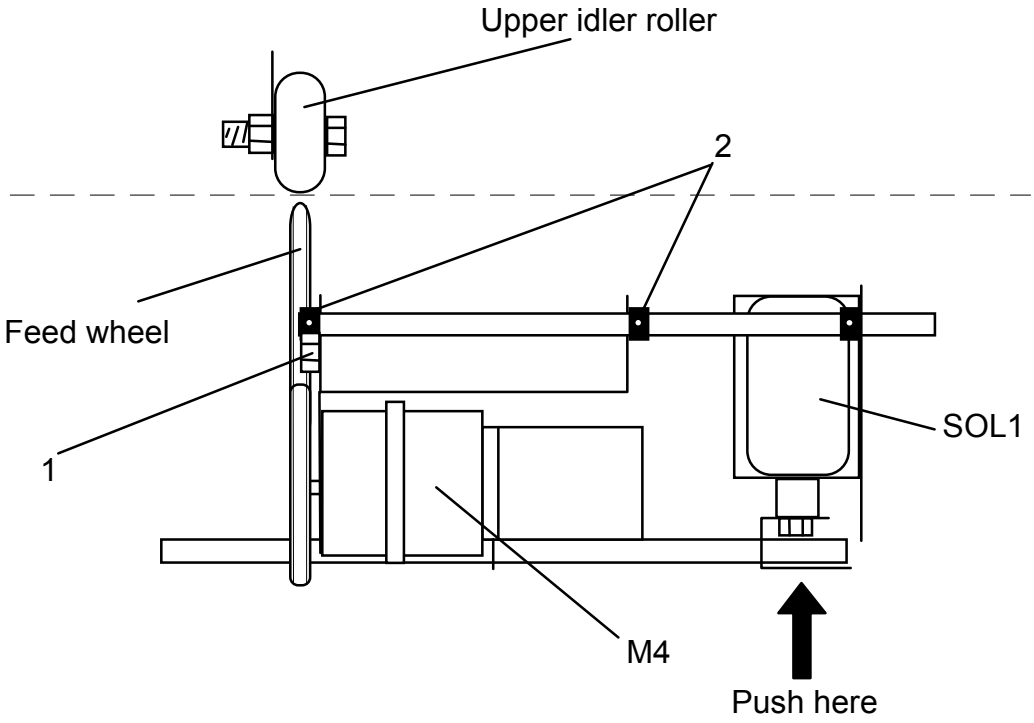
1. Loosen the screw on the rear side of Solenoid SOL1 and position the solenoid to obtain the correct distance between the rollers.



PURPOSE

This adjustment is more essential on the Model 61, when the set is fed to the Fold stop on a Model 61
the inner Side jogger rail will not guide the set as on a Model 60.

1. Switch off the main power switch and disconnect the power cord.
2. Remove lower Infeed cover, CRI 1.2.
3. Run a few sets and check that they are fed straight down to the Fold stop.

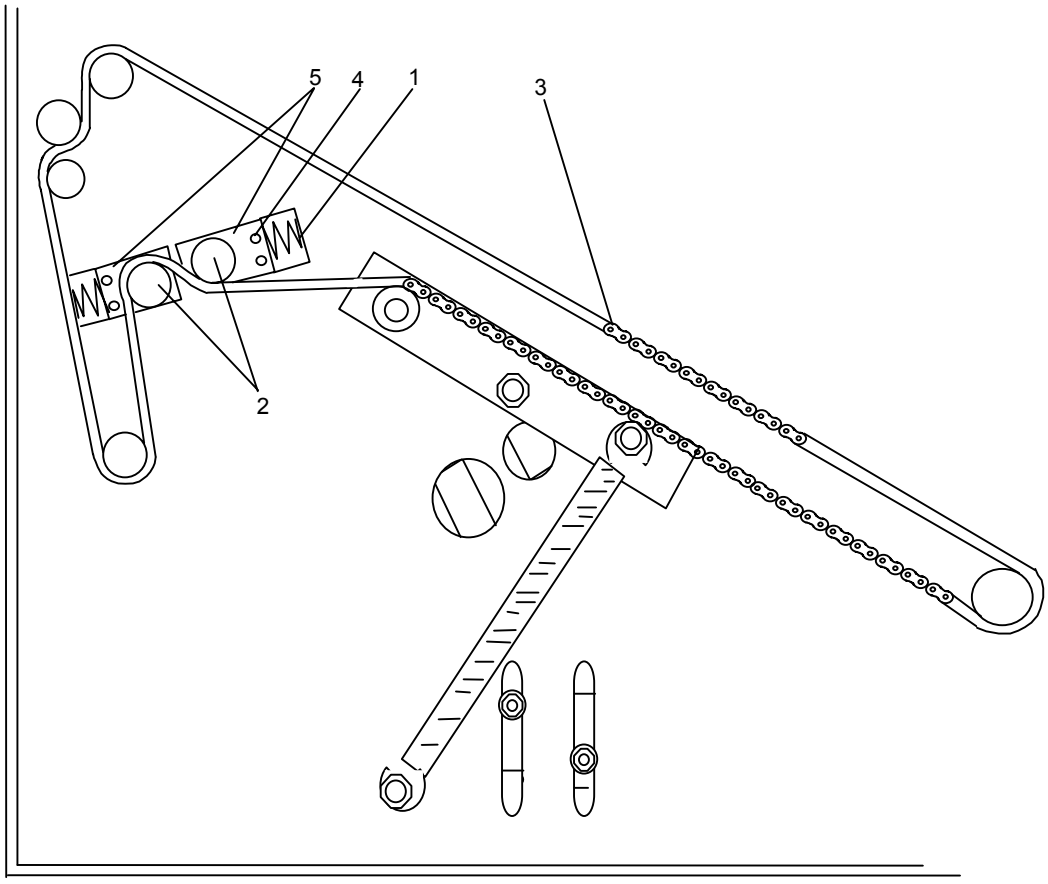


ADJUSTMENT

1. Adjust the skewing of Feed wheel by loosening the screw (1) and turn the Feed motor assembly.
2. Align the Feed wheel with the upper Idler roller by positioning the set collars (2).

REMOVE

1. Switch off the main power switch and disconnect the power cord.
2. Remove Front cover, CRI 1.1.
3. Remove the springs (1), use a screwdriver to compress the springs when removing.
4. Remove the sprockets (2) and the drive chain (3).
5. Loosen the sheet metal screws (4) on one side of the fold roller shaft. This will open up a space between the brackets (5).
6. Move the Fold roller shaft up/down and push out the brackets (5) and shaft trough the cut out in the side frame.
   CAUTION: In order to compensate for variations between machines, there could be shim washers placed on the inside of the bushing at the end of the Fold roller shafts. Note the position of the washers when removing.



INSTALLATION

Installation is an exact reversed procedure of removal.
NOTE: When installing run the machine for a few revolution to let the sprockets "settle" before tightening.

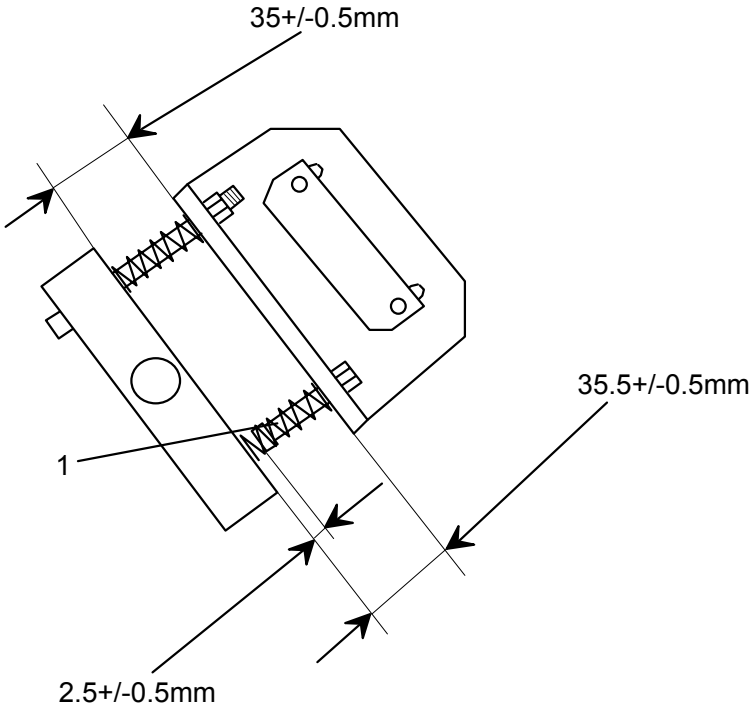
REP 2.16 Fold pressure, top Fold rollers

T08009 TJ

PURPOSE

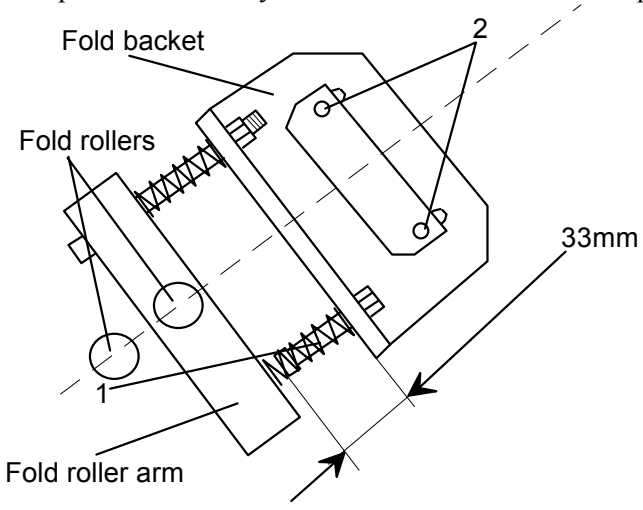
There are two springs on each side of the top Fold rollers, one is stiff and the other is softer.
When running two to five sheets the Fold rollers will only use the soft springs, when running up to twenty sheets all of the springs will be compressed.

1. Switch off the main power switch and disconnect the power cord.
2. Remove Front and Rear cover, CRI 1.1.
3. Check that there is a 35 +/- 0.5mm space in-between the fold bracket and the fold roller arm at the top spring.
4. Check that there is 35.5 +/- 0.5mm space in-between the fold bracket and the fold roller arm at the lower spring.
5. Use a feeler gauge to check that there is a 2 +/- 0.5mm space in-between the screw (1) and the fold roller arm.



ADJUSTMENT

1. Start with adjusting screw (1) to a distance of 33mm.
2. Adjust the space between the fold bracket and the fold roller arm to 35+/- 0.5mm on the upper screw.
3. Loosen the screws (2) and position the fold pressure assembly until the Fold rollers are in a straight line with the fold pressure assembly and the distance at the lower spring is 35.5+/- 0.5mm.

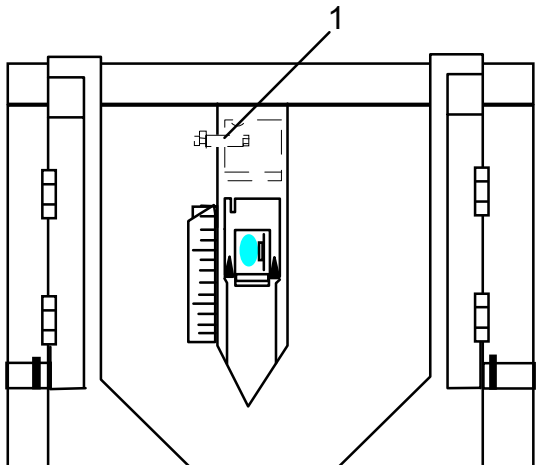


PURPOSE

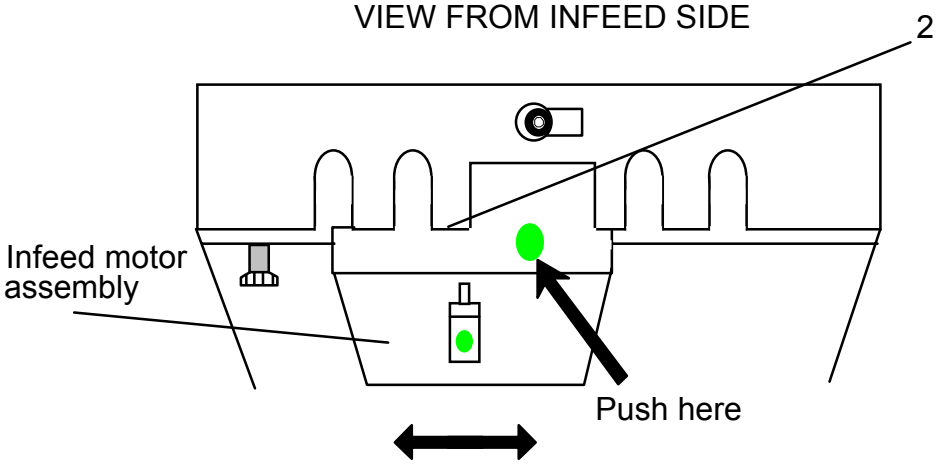
By removing the infeed motor assembly you will have an easy access to the infeed motor and infeed roller.

1. Switch off the main power switch and disconnect the power cord.
2. Remove Infeed covers, CRI 1.2
3. Disconnect the Infeed Motor M6 from the wire harness.
4. Remove the stud (1).
5. Push down the Infeed Motor assembly to by pass mode.
6. Push on the Infeed Motor assemble indicated in the drawing until it passes over the edge (2).
7. Move the Infeed Motor assembly left/right and lift out.

VIEW FROM TOP



VIEW FROM INFEED SIDE

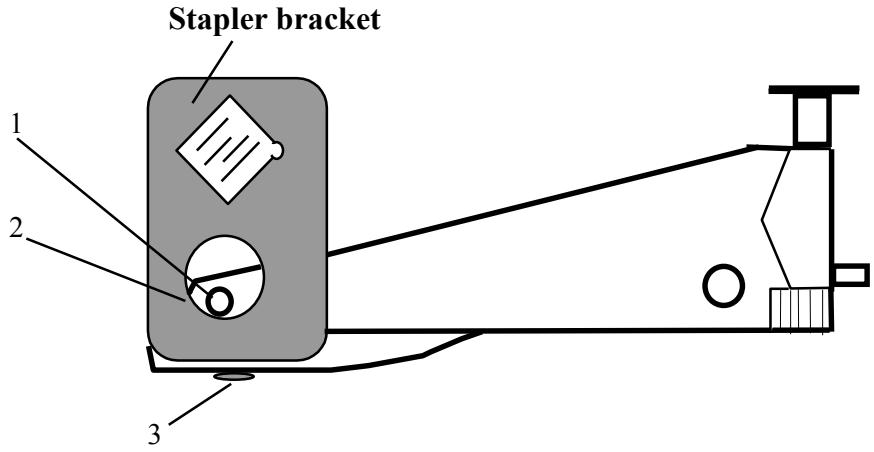


INSTALLATION

Installation is an exact reversed procedure of removal.

REMOVAL

1. Switch off the main power switch and disconnect the power cord.
2. Remove the Stapler head by removing the pin 1 trough the hole 2.
   NOTE. Older machines does not have the hole 2 in the stapler bracket. On these machines the screws 3 has to be removed in order to remove the stapler head. Before removing make a mark to reposition the stapler head when replacing.

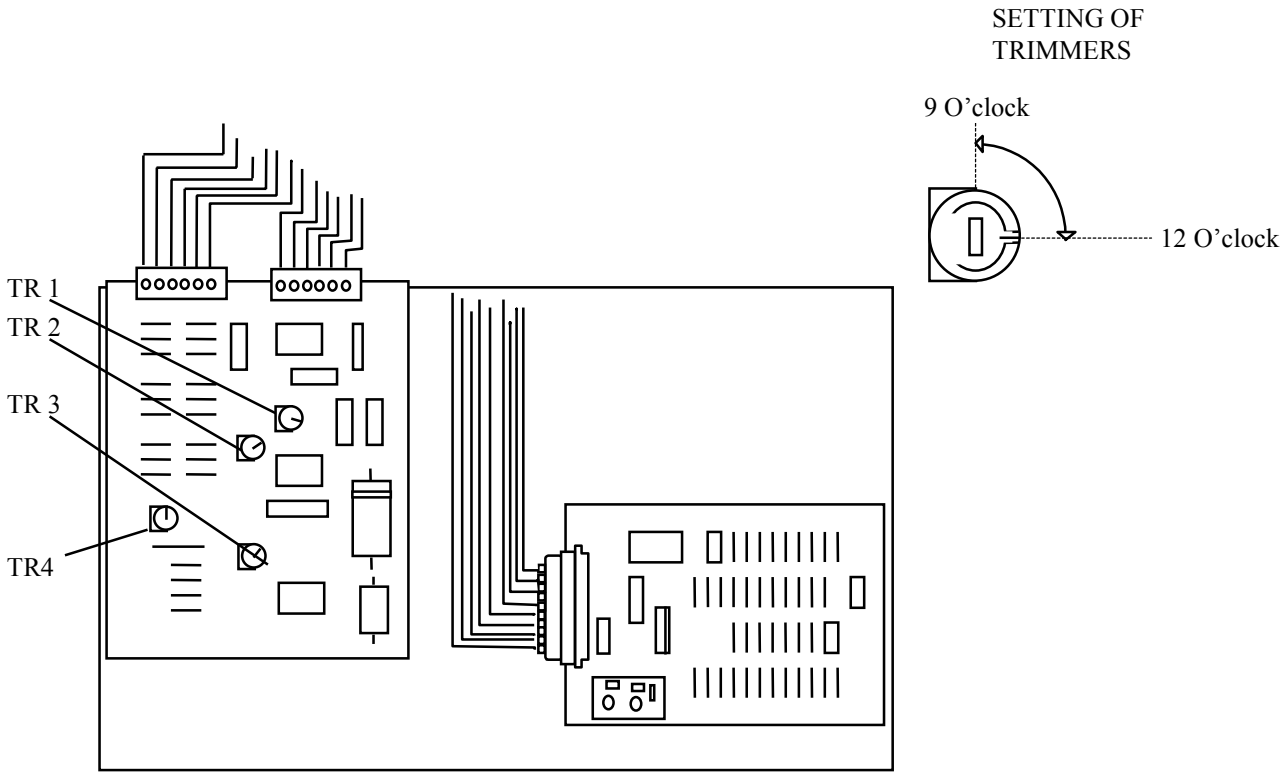


INSTALLATION

Installation is an exact reversed procedure of removal.

PURPOSE

The trimmers on the circuit board can be adjusted in order to increase or decrease the different functions described below. If exchanging a circuit board position of the trimmers has to checked.



ADJUSTMENT

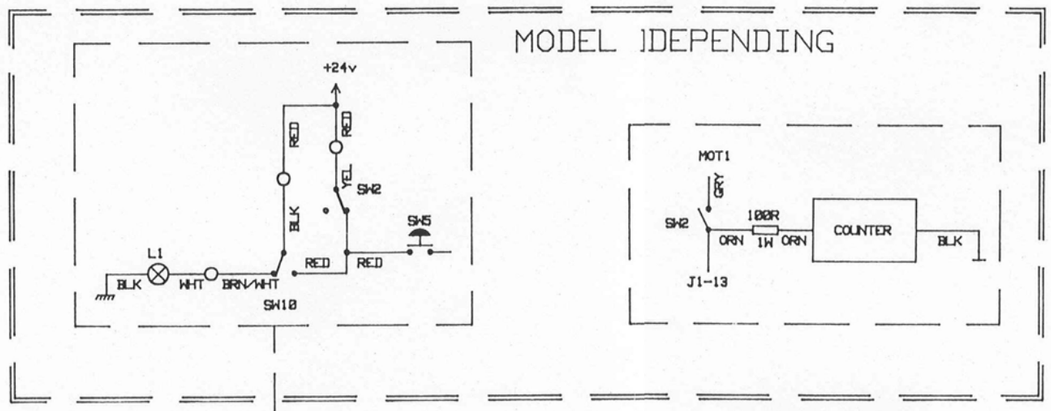
Trimmer 1 Controls the operating time of the Eject Motor M4.
Normal setting 12:30.

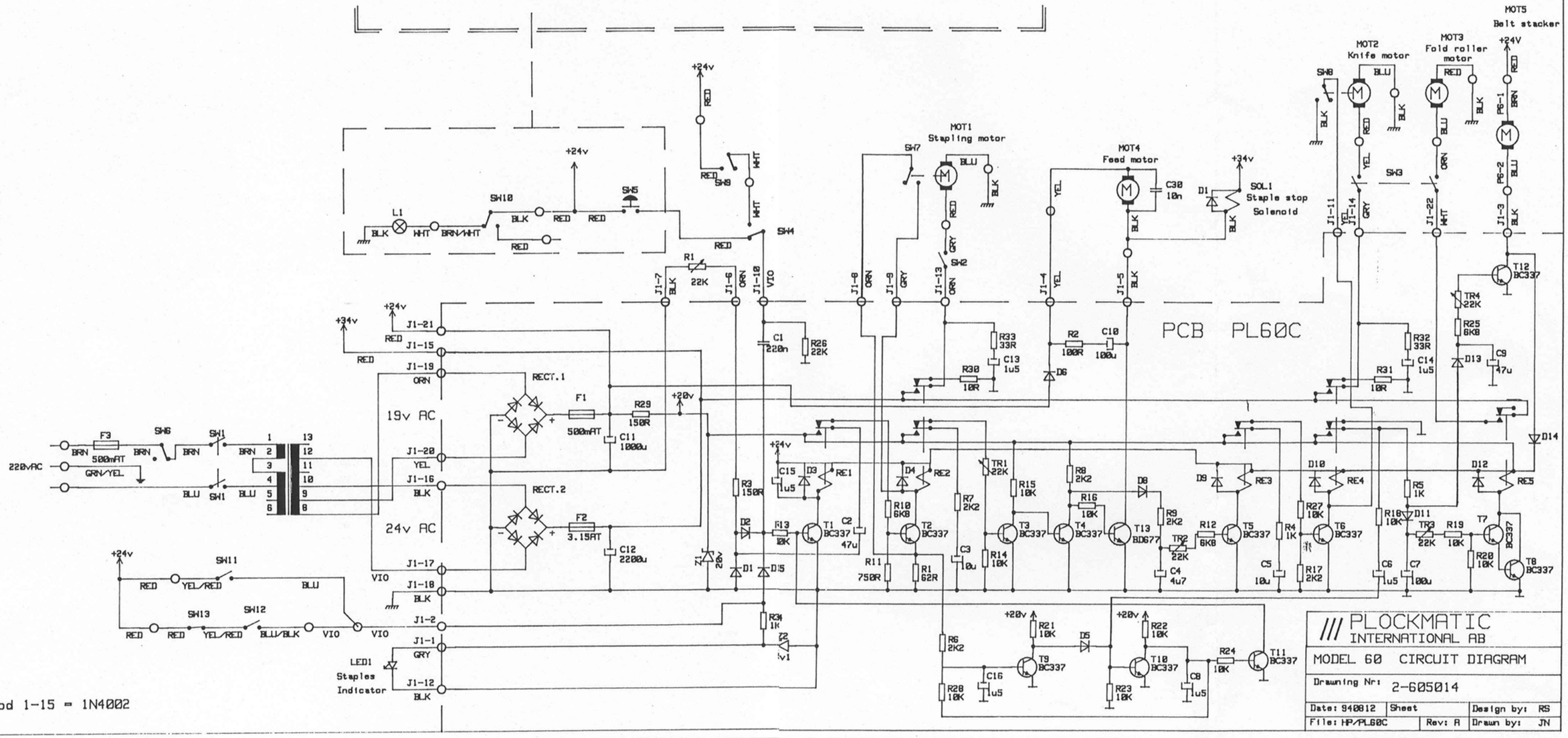
Trimmer 2 Delay of start pulse for Fold knife Motor M2.
Normal setting 11:00.

Trimmer 3 Controls the operating time for Fold roller Motor M3.
Normal setting 10:00.

Trimmer 4 Controls the operating time for Conveyor Motor M5.
Normal setting 09:00.

SW1-Main switch
SW2-Stapling switch
SW3-Fold switch
SW4-Automatic/manuell switch
SW5-Manuell start switch
SW6-Interlock switch
SW7-Home pos. MOT1 switch
SW8-Home pos. MOT2 switch
SW9-Start switch
SW10-Set clear switch
SW11-Staple indicator switch
SW12-Staple indicator switch
SW13-Single staple switch





Diod 1-15 = 1N4002

/// PLOCKMATIC INTERNATIONAL AB			
MODEL 60 CIRCUIT DIAGRAM			
Drawning Nr: 2-605014			
Date: 940812	Sheet		Design by: RS
File: HP/PL60C		Rev: A	Drawn by: JN

PCB PL61-2A

SW1-Main switch
SW2-Stapling switch
SW3-Fold switch
SW4-Automatic/manuell switch
SW5-Manuell start switch
SW6-Interlock switch
SW7-Home pos. MOT1 switch
SW8-Home pos. MOT2 switch
SW9-Start switch
SW10-Set clear switch
SW11-Staple indicator switch
SW12-Staple indicator switch
SW13-Single staple switch

Diod 1-15 = 1N4002
Diod 16-29 = 1N4148

PCB PL60C

MOD 61-J5 / MOD 61-J2 / MOD 300/400
MOD 300/400 +30v — J5-16 ORN — J2-1 WHT — J7-1
J4-2 — J5-1 GRY — J2-2 YEL — J7-2 — FROM MOD 300/400
STOP/JAM FROM MOD 300/400 — J5-11 WHT — J2-3 GRN — J7-3
TRIG FROM MOD 300/400 — J5-18 BLU — J2-4 BLU — J7-4
STOP/JAM FROM MOD 61 — J5-17 BRN — J2-5 RED — J7-5
MOD 61 +24v — J5-19 RED — J2-6 BRN — J7-13
FROM MOD 61 — J5-8 BLK — J2-7 BLK — J7-7
MOD 300/400 BELT MOTOR — J5-4 YEL — J2-10 VIO — J7-12
J4-1 YEL
J2 FEMALE

J5-17 BRN — J7-5
J5-18 NC
J5-5 NC
J5-12 VIO — J1-2
J5-24 YEL
J5-20 BLK
LED2 Jam Indicator

MOT1 Stapling motor
MOT2 Knife motor
MOT3 Fold roller motor
MOT4 Feed motor
MOT5 Belt stacker
MOT6 Rear jogger
SOL1 Staple stop Solenoid
LED1 Staples Indicator

220vAC — F3 500mAT — SW6 — SW1 — 19v AC / 24v AC
RECT.1 — F1 500mAT — C11 1000u
RECT.2 — F2 3.15AT — C12 2200u
+24v — +20v — +34v — +15v — +12v — 5v1

SW1 SW2 SW3 SW4 SW5 SW6 SW7 SW8 SW9 SW10 SW11 SW12 SW13

IC1 LM258 — IC2 LM258 — IC7 Vin +15v 7815 — OC1 PC827

T1 BC337 — T2 BC337 — T3 BC337 — T4 BC337 — T5 BC337 — T6 BC337 — T7 BC337 — T8 BC337 — T9 BC337 — T10 BC337 — T11 BC337 — T12 BC337 — T13 BD677 — T14 BC337 — T15 BC337 — T16 BD677 — T17 BC337 — T18 BC337 — T19 BC337 — T20 BC337

RE1 — RE2 — RE3 — RE4 — RE5 — RE6

D1 D2 D3 D4 D5 D6 D8 D9 D10 D11 D12 D13 D14 D15 D16 D17 D18 D19 D20 D21 D22 D23 D24 D25 D26 D27 D28 D29

Z3 12v

J1-1 GRY — J1-2 VIO — J1-6 — J1-7 BLK — J1-10 — J1-11 YEL — J1-12 BLK — J1-13 ORN — J1-14 GRY — J1-15 RED — J1-16 BLK — J1-17 VIO — J1-18 BLK — J1-19 ORN — J1-20 YEL — J1-21 RED — J1-22 WHT

J5-1 GRY — J5-2 ORN — J5-3 VIO — J5-4 YEL — J5-6/19 RED — J5-7-8/20-22 BLK — J5-10 BLU — J5-11 WHT — J5-15 WHT — J5-16 ORN — J5-22 BLK — J5-23 GRY — J5-25 ORN

J7-1 — J7-2 GRY — J7-3 — J7-4 — J7-12 YEL

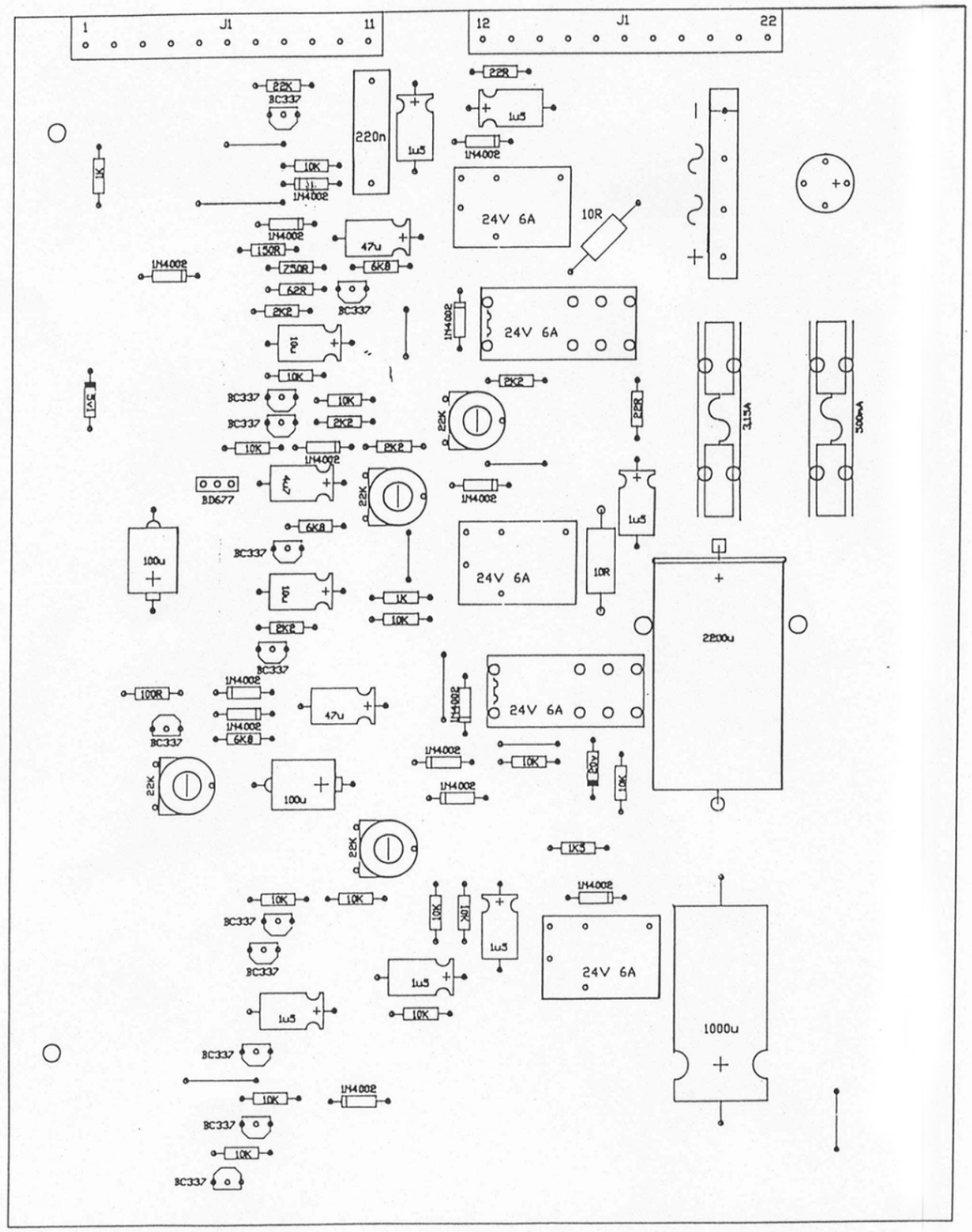
P3-1 YEL — P3-2 GRY — P5-1 BRN — P5-2 BLU — P5-3 BLK

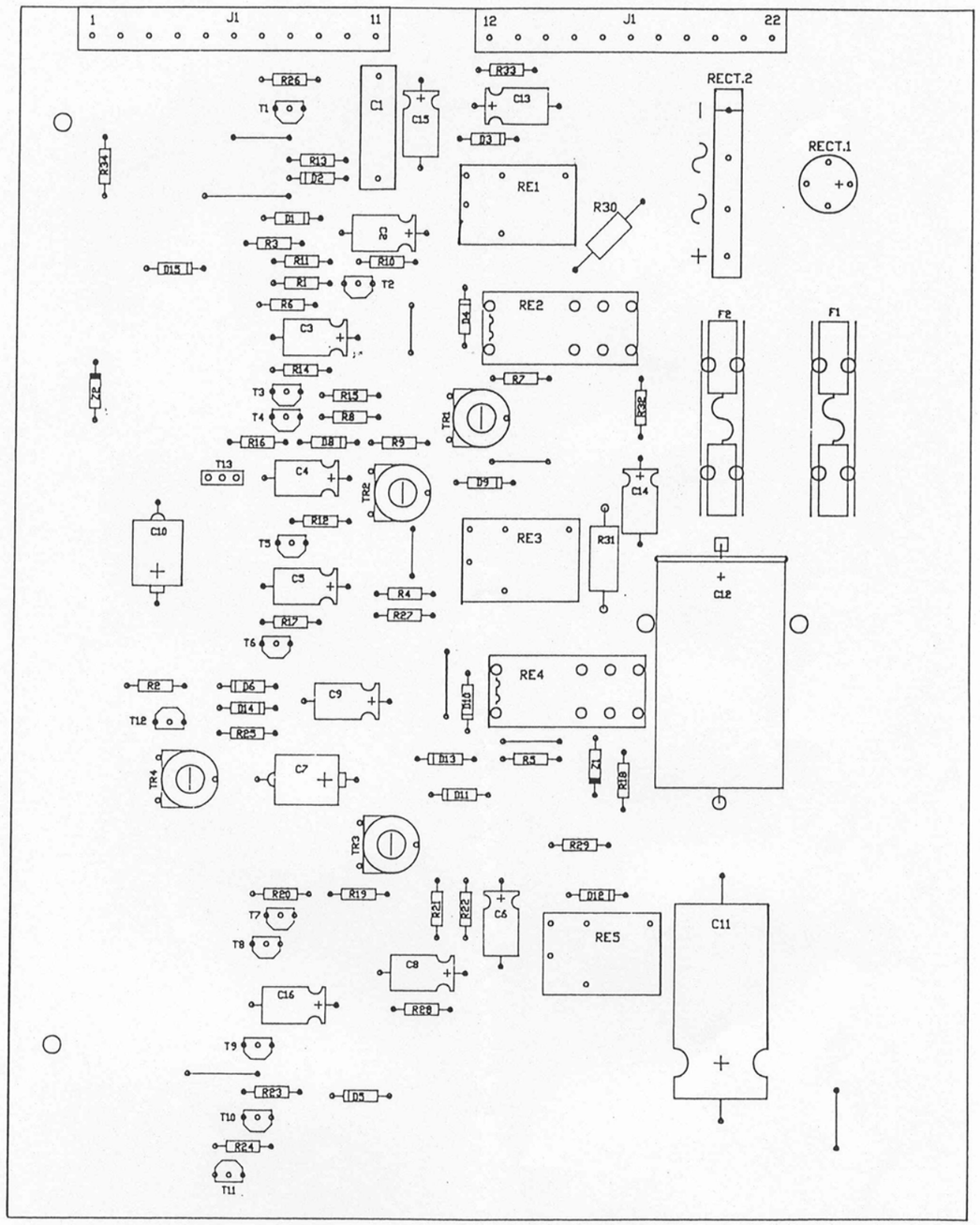
PLOCKMATIC INTERNATIONAL AB

MODEL 61 CIRCUIT DIAGRAM

Drawning Nr: 2-605201

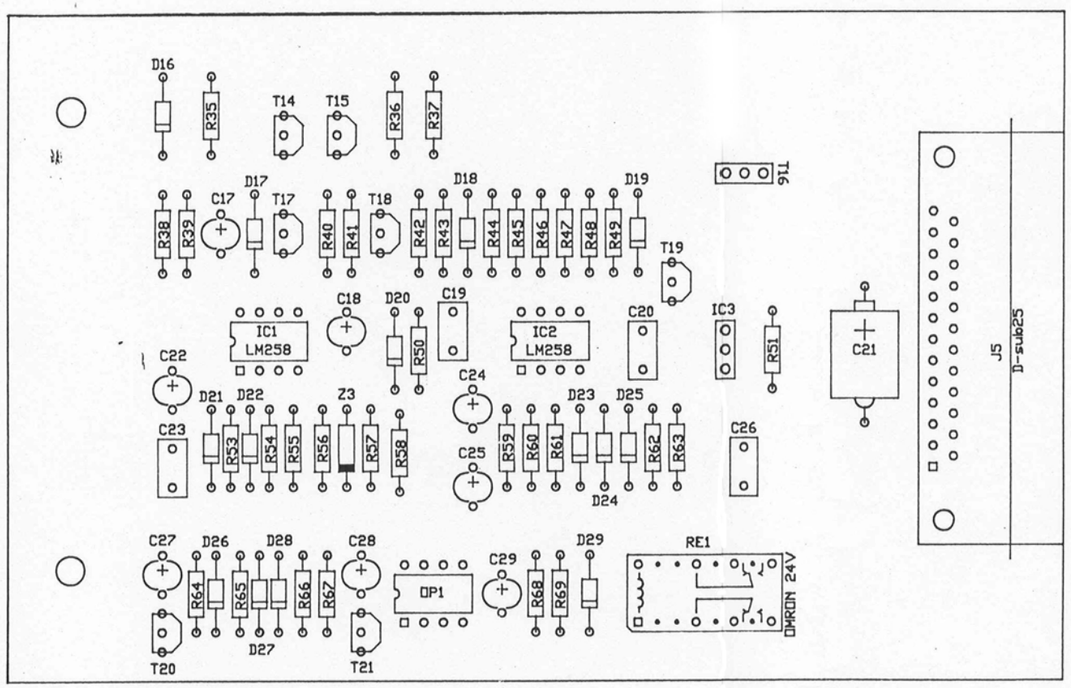
Date: 940812 | Sheet | Design by: RS
File: HP/PL612A | Rev: A | Drawn by: JN

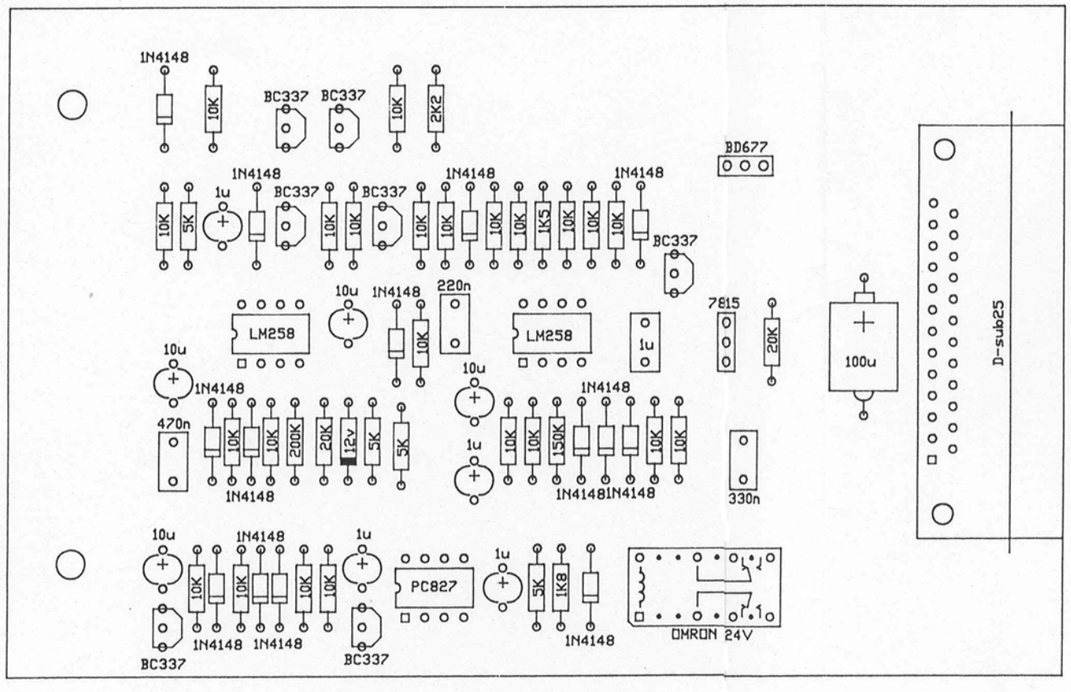




PLOCKMATIC International AB

Title: PL60C PCB-LAYOUT		
Size: A3	Drawing no:	Revision: A
Date: 94-09-27	Sign:	Sheet 1 of 1
Rev. Date: 94-09-27	Part no:	





PLOCKMATIC
International AB

Title: PL61-2A PCB-LAYOUT		
Size: A3	Drawing no: 3-605202	Revision: A
Date: 94-09-08	Sign: JN	Sheet 1 of 1
Rev. Date: 94-09-08	Part no:	

Observed fault	Possible cause	Fault isolating/repair
No machine initialisation.	Power supply not connected.	Check voltage in power cord.
	Main fuse F3 defective.	Check fuse at power receptacle.
	Secondary fuses F1 & F2 defective.	Check fuses at circuit board PCB PL60.
	1. Transformer defective.	Check voltage at primary side of transformer, according to label on transformer. If OK, go to step **2.**
	Main switch SW1 defective.	Check function of main switch SW1.
	Interlock switch SW6 defective.	Check function of Interlock switch SW6.
	2. Transformer defective.	Check voltage on secondary side of transformer.
	Main circuit board PCB PL60 defective.	Check for approximately 34 VDC at connector J1 pin 15 and common ground. Check for 24 VDC at connector J1 pin 21 and common ground.
Infeed motor M6 inoperative.	Fuse F2 defective.	Check fuse F2 at circuit PCB PL 60.
	Main circuit board PCB PL60 defective.	Check for app. 34 VDC at Connector J1 pin 15 and common ground.
	Circuit board PCB PL61 defective.	Check for app. 0 VDC at connector J5 between pin 22 and 25.
	Interface cable/wire harness defective.	Check for app. 22 VDC at connector J5 between pin 4 and 8.
	Infeed motor M6 defective.	Check for app. 34 VDC at motor M6.

Observed fault	Possible cause	Fault isolating/repair
Stapler motor M1 inoperative.	Fuse F2 defective.	Check fuse F2 at circuit PCB PL 60.
	Main circuit board PCB PL60 defective.	Check for app. 34 VDC at Connector J1 pin 13 and common ground.
	Staple mode switch SW 2 on front panel defective.	Check function of SW2.
	Stapler motor M1 defective.	Check for app. 24 VDC at motor M6.
Stapler motor M1 cycles continuously.	Home position switch SW7 defective.	Check function of home position switch SW7, see REP 2.10.
	Main circuit board PCB PL60 defective.	Replace PCB PL60.
Eject solenoid S1 inoperative.	Eject solenoid S1 defective.	Check for app. 34 VDC at solenoid S1.
	Main circuit board PCB PL60 defective.	Replace PCB PL60.
Eject motor M4 inoperative.	Eject motor M4 defective.	Check for app. 24 VDC at motor M4.
	Main circuit board PCB PL60 defective.	Check for app. 24 VDC at connector J1 between pin 4 & 5.
Fold knife motor M2 inoperative.	Main circuit board PCB PL60 defective.	Check for app. 24 VDC at connector J1 pin 14 and a common ground.
	Fold mode switch SW 3 on front panel defective.	Check function of SW3.
	Knife motor M2 defective.	Check for app. 24 VDC at motor M2.

Observed fault	Possible cause	Fault isolating/repair
Fold knife motor M2 cycles continuously.	Home position switch SW8 defective.	Check function of home position switch SW8, see REP 2.11.
	Main circuit board PL60 defective.	Replace PCB PL60.
Fold roller motor M3 inoperative.	Main circuit board PCB PL60 defective.	Check for app. 24 VDC at connector J1 pin 22 and a common ground.
	Fold mode switch SW 3 on front panel defective.	Check function of SW3.
	Fold motor M3 defective.	Check for app. 24 VDC at motor M3.
Belt stacker motor M5 inoperative.	Main circuit board PCB 60 defective.	Check for 24 VDC at connector J6 between pin 1 & 2.
	Belt stacker motor M5 defective.	Check for 24 VDC at belt stacker motor.
Jam occurs in Model 61 no jam signal indicated.	Circuit board PL61 defective.	Check for a short pulse of 24VDC connector J5 pin 10 and common ground on PCB 61.
ground	Main circuit board PCB 90-1 in collator defective.	Check for 24 VDC between J2 pin 1 and common on PCB 90-1. When jam occurs app. 0 VDC should be obtained.

Observed fault	Possible cause	Fault isolating/repair
False jam indication from Model 61.	Main circuit board PL60 defective.	Check for app. 24 VDC at connector J1 between pin 10 and common ground.
	Circuit board PL61 defective.	Check for app. 24 VDC at connector J5 between pin 23 and common ground.
	Start switch SW9 defective.	Check for app. 24 VDC at connector J5 between pin 15 and common ground.
	Main circuit board PCB 90-1 in collator or interface cable defective.	Check for app. 30 VDC at connector J5 between pin 1 and 16.
Staple position not on fold.	Staple stop not parallel compared to anvils.	See REP 2.5.
	Fold plate not in correct position.	See REP 2.7.
Fold not straight.	Fold stop not in correct position.	See REP 2.6.
	Side guides not straight.	See REP 2.3.
	Eject Idler roller not in correct position.	See REP 2.12.
	Eject motor not in correct position.	See REP 2.13.
	Eject Idler rollers not aligned.	See REP 2.14.
Staples deformed.	Staple position to anvils not correct.	See REP 2.8.
	Staple pressure not correct.	See REP 2.9.

Observed fault	Possible cause	Fault isolating/repair
No machine initialisation.	Power supply not connected.	Check voltage in power cord.
	Main fuse F3 defective.	Check fuse at power receptacle.
	Secondary fuses F1 & F2 defective.	Check fuses at circuit board PCB PL60.
	1. Transformer defective.	Check voltage at primary side of transformer, according to label on transformer. If OK, go to step **2.**
	Main switch SW1 defective.	Check function of main switch SW1.
	Interlock switch SW6 defective.	Check function of Interlock switch SW6.
	2. Transformer defective.	Check voltage on secondary side of transformer.
	Main circuit board PCB PL60 defective.	Check for approximately 34 VDC at connector J1 pin 15 and common ground. Check for 24 VDC at connector J1 pin 21 and common ground.
Stapler motor M1 inoperative.	Fuse F1 defective.	Check fuse F1 at circuit PCB PL 60.
	Main circuit board PCB PL60 defective.	Check for app. 24 VDC at Connector J1 pin 13 and common ground.
	Stapler motor M1 defective.	Check for app. 24 VDC at motor M6.
	Staple mode switch SW 2 on front panel defective.	Check function of SW3.

Observed fault	Possible cause	Fault isolating/repair
Stapler motor M1 cycles continuously.	Home position switch SW7 defective.	Check function of home position switch SW7, see REP 2.10.
	Main circuit board PCB PL60 defective.	Replace PCB PL60.
Eject solenoid S1 inoperative.	Eject solenoid S1 defective.	Check for app. 34 VDC at solenoid S1.
	Main circuit board PCB PL60 defective.	Replace PCB PL60.
Eject motor M4 inoperative.	Eject motor M4 defective.	Check for app. 24 VDC at motor M4.
	Main circuit board PCB PL60 defective.	Check for app. 24 VDC at connector J1 between pin 4 & 5.
Fold knife motor M2 inoperative.	Main circuit board PCB PL60 defective.	Check for app. 24 VDC at connector J1 pin 14 and a common ground.
	Knife motor M2 defective.	Check for app. 24 VDC at motor M2.
	Fold mode switch SW 3 on front panel defective.	Check function of SW3.
Fold knife motor M2 cycles continuously.	Home position switch SW8 defective.	Check function of home position switch SW8, see REP 2.11.
Fold roller motor M3 inoperative.	Main circuit board PCB PL60 defective.	Check for app. 24 VDC at connector J1 pin 22 and a common ground.
	Fold motor M3 defective.	Check for app. 24 VDC at motor M3.
	Fold mode switch SW 3 on front panel defective.	Check function of SW3.

Observed fault	Possible cause	Fault isolating/repair
Belt stacker motor M5 inoperative.	Main circuit board PCB 60 defective.	Check for 24 VDC at connector J6 between pin 1 & 2.
	Belt stacker motor M5 defective.	Check for 24 VDC at belt stacker motor.
Staple position not on fold.	Staple stop not parallel compared to anvils.	See REP 2.5.
	Fold plate not in correct position.	See REP 2.7.
Fold not straight.	Fold stop not in correct position.	See REP 2.6.
	Side guides not straight.	See REP 2.2.
	Eject Idler roller not in correct position.	See REP 2.12.
	Eject motor not in correct position.	See REP 2.13.
Staples deformed.	Staple position to anvils not correct.	See REP 2.8.
	Staple pressure not correct.	See REP 2.9.

Preventive Maintenance Bookletmaker Model 60 / 61

Service interval: 80 000

Note: ***All INSTRUCTIONS are referring to the Stapler folder Model 60 / 61 Service Manual. The REFERENCE column is referring to the Spare parts list of Model 60 / 61 revision date November 1994.***

Important: ***If any of the checkpoints show indication of wear at any point, replace the part. When lubricating, clean the surface before applying new lubricant***

CHECK POINT	INSTRUCTION	REFERENCE	80 000	160 000	240 000
All Machine, Paper paths etc.	Use a vacuum cleaner, towels and brushes to clean the machine from paper dust. Use an alcohol to clean from ink.		Clean	Clean	Clean
Stapler head (2 pcs.)	Clean stapler heads from glue and apply ball bearing grease on drive bar. Check adjustment REP 2.8 - 2.10		Clean/G-rease	Clean/Gre-ase	Check/ Replace
O-ring on Eject feed wheel.	Use a rubber reactivator alcohol fluid. Check for wear. If worn replace. Always replace at 160 000.	Page 1.14Item 4	Clean	Replace	Clean
Staple motor and Staple motor Home position.	Apply silicon grease between Motor crank and plastic crank arm. Check adjustment according to REP 2.10.	Page 1.12 Item 10 & 11	Check/ Adjust	Check/ Adjust	Check/ Adjust
Lifting clamp.	Apply silicon grease between Stapler head and Lifting clamp.	Page 1.10 Item 5	Grease	Grease	Grease
Chain.	Apply chain oil. Check for wear, if worn replace.		Oil	Oil	Oil
Chain idler wheel	Apply chain oil and check for wear, if worn replace.	Page 1.20 Item 3 & 10	Oil/ Check	Oil/ Check	Check/ Replace
Rubber rings on Lower fold rollers.	Use a rubber reactivator alcohol fluid.Check for wear. If worn replace.	Page 1.18 Item 11	Clean	Clean/ Check	Check/ Replace
Lower Fold roller Flanged bushing.	Under the top cover, use oil between the Flanged bushings and shaft. Check for wear, if worn replace.	Page 1.18 Item 8			Check/Oil
Upper fold rollers.	Use a rubber reactivator alcohol fluid.		Clean	Clean	Clean
Bushing on Upper fold rollers. *	Under the top cover, use oil between the Flanged bushing and shaft. Apply grease between bushings and side frame. Replace at 160 000.	Page 1.18 Item 6	Oil	Replace (Old machines)*	Oil
Fold knife guides (2 pcs.)	Apply grease on vertical rods.	Page 1.16 Item 1		Grease	
Side jogger movement (Only Model 61)	Inside the infeed cover, apply grease on screw between jogger linkage and lower stapler bracket.	Page 2.10 Item 6	Grease	Grease	Grease
V-belt on Belt stacker motor.	Check for wear. If worn replace.	Page 1.24 tem 4	Check	Check	Check/ Replace
Transport belts on Belt stacker.	Use a rubber reactivator alcohol fluid.Check for wear. If worn replace.	Page 1.22 Item 10	Clean	Clean	Replace

CHECK POINT	INSTRUCTION	REFERENCE	80 000	160 000	240 000
INFEED MODULE MODEL 61					
Infeed wheel	Use a rubber reactivator alcohol fluid.Check for wear. If worn replace.	Page 2.9 Item 8	Clean	Clean	Check/ Replace
Plastic guide included in Back jogger	Apply grease between the oblong hole and the metal pivot pin (4x).	Page 2.8 Item 5	Check	Grease	Check
Back jogger adjustment bracket.	Apply a thin layer of silicon grease between the Rear jogger bracket and the bottom frame.	Page 2.8 Item 3	Check	Grease	Check
FINAL CHECK POINTS					
Side guide parallelism	Check that the side guides are parallel according to REP 2.2 or 2.3.		Check/ Adjust	Check/ Adjust	Check/ Adjust
Booklet quality	Check the booklet quality and adjust according to REP 2.5 - 2.9.		Check/ Adjust	Check/ Adjust	Check/ Adjust

***From serial number 60161319 (Model 60) and serial number 61061366 (Model 61) the bushing is made of plastic instead of metal. Please use grease instead of oil.**